Poverty and Inequality during the Great Recession in Greece

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The Greek crisis started off in 2009 as a fiscal crisis, soon turned into a sovereign debt crisis and finally mutated into a full-blown recession. At the time of writing (summer 2013), the Greek economy has been posting negative growth figures for five full years (since the third quarter of 2008) and shown few signs of recovery. Based upon the latest official figures (Bank of Greece, 2013), by the end of 2013 the size of the economy will have contracted by 23.5 per cent in real terms relative to 2007. So deep and drawn out a recession simply has no precedent in the economic history of any advanced economy in peacetime.

The crisis has set in motion wide-ranging changes in the institutional architecture of governance in the Eurozone. At the same time, it has transformed beyond recognition the political landscape at home. Two developments in particular have helped poison the political climate and have provided fertile ground for the rise of extremism on both ends of the political spectrum. On the one hand, the effective loss in national sovereignty due to control over economic policy being ceded to external actors is widely seen as unaccountable to democratic institutions and unresponsive to domestic concerns. On the other hand, there is the acute social emergency that is manifested by mass unemployment and rapidly falling incomes.

Given the size of the country's twin deficits immediately before the crisis (i.e. current account deficit 14.9 per cent of gross domestic product (GDP) in 2008, budget deficit 15.6 per cent of GDP in 2009), it is difficult to see how fiscal adjustment and hence austerity, could have been avoided. Nevertheless, there was nothing inevitable about the depth and duration of the recession. As has now emerged, international agencies involved in the design of the bailout package seriously underestimated the output loss associated with austerity. As a recent study by top International Monetary Fund (IMF) economists Olivier Blanchard and Daniel Leigh (2013) conceded, early forecasts assumed a 'fiscal multiplier' of about 0.5 (i.e. reducing the budget deficit by €10 would lead to a drop in

GDP of €5), while the actual effect turned out to be about 1.5 (i.e. a deficit reduction of €10 may have led to a fall in output of €15) or more. This seems to be especially the case in the early phases of a recession, and in countries where the size of fiscal consolidation is large, which seems a fair description of Greece in 2010.

Nor was there anything inevitable about the social effects of the Great Recession. As Frank Castles (2010) has put it:

> Long lines of the unemployed caused by economic crises are the core business of the welfare state. ... These are precisely the kinds of emergencies that welfare state programmes and institutions are designed to deal with, so that when a financial crisis turns up we have routine mechanisms ... for coping with its consequences (Castles, 2010).

Furthermore, the policy content and the distributional impact of austerity policies need not be regressive. As a recent survey of fiscal consolidation programmes in 29 Organisation for Economic Cooperation and Development (OECD) countries in 1971–2009 by Georgia Kaplanoglou *et al.* (2013) has demonstrated, fiscal adjustments can be fair – in fact, they had better be:

> Ameliorating the effects of adjustment, by supporting the weaker parts of society, is crucial for the success of fiscal consolidations and ... may provide the double dividend of enhancing the probability of success of the adjustment and of promoting social cohesion (Kaplanoglou *et al.*, 2013).

This article addresses a narrower set of questions, though with wider repercussions: What are the effects of the Greek crisis on income distribution? Has it caused inequality and poverty to rise – and if so, by how much? How fairly has the burden of the Great Recession been shared between social groups? To which specific policies and/or broader developments can the observed changes in income distribution be attributed? And, most significantly, have the rich become richer (and the poor poorer)?

We start by going through the most salient aspects of the crisis and austerity in Greece. We move to reviewing the methodology for simulating the distributional impact of the Great Recession and the evidence on factors promoting or hindering the transition from economic crisis to social emergency in various countries. We then present our estimates of effects on poverty and inequality in Greece and the contribution of individual policies to the outcomes observed. We conclude by discussing the policy implications of our research.

The Great Recession in Greece

In response to the mounting debt crisis, with spreads on ten-year government bonds (i.e. interest rate differentials from German government bonds) reaching ten percentage points in April 2010, the Greek government accepted a bailout package from the European Commission, the European Central Bank and the IMF (the 'Troika') in May 2010. In return for the bailout, the Greek government signed a Memorandum of Economic and Financial Policies, committing it to an austerity programme of sweeping spending cuts and steep tax hikes. Since then, the provisions of what is often referred to as 'the Greek Programme' have been revised several times. The latest revision (mid-term Fiscal Strategy Framework, 2013–16), agreed in November 2012, specified structural fiscal savings to the tune of €13.5 billion (7.15 per cent of GDP) in 2013–14.

Under the terms of the bailout package(s), public sector pay, pensions and other social benefits have been severely cut. Nominal reductions were not compensated by falling prices: inflation, caused by value-added tax (VAT) hikes as well as rising oil prices internationally and product market rigidities domestically, jumped to almost 5 per cent in 2010 then fell to slightly above 1 per cent in 2012. At the same time, as a result of higher tax rates on falling incomes, the fiscal pressure increased.

Austerity policies were introduced when the Greek economy was already in recession, which made it deeper still. As the demand for goods and services fell, many businesses went bankrupt, others relocated and most of those staying afloat resorted to layoffs and/or pay arrears. As a result, unemployment rose sharply from 7.7 per cent in 2008 to 24.3 per cent in 2012. In February 2012, in a bid to stem job losses and boost competitiveness through 'internal devaluation', the minimum wage was cut by 22 per cent or, for workers aged below 25, by 32 per cent.

The cut in minimum wages had no precedent worldwide and contributed to further worsening the social and political situation at home. It had been insisted upon by the Troika, reluctantly accepted by the government and strongly contested by employer federations and labour unions. Moreover, there is scant evidence that 'internal devaluation' actually worked. The trade deficit did improve, but not so much because exports grew (as the theory prescribed), but because imports fell precipitously (as a result of a sharp fall in incomes and hence in demand for imported goods). Meanwhile, the labour market effects of the cut in the minimum wage were unambiguously dramatic. Unemployment continued to rise, albeit at a slower rate. Moreover, across the earnings scale, wages started to decline at a higher pace. On the whole, official figures (Bank of Greece, 2013) reveal that average real gross earnings for employees have lost more ground since the onset of the crisis than they gained in the decade before that, with their level by the end of 2013 expected to be 9.2 per cent below what it had been in 2000.

Poverty and Inequality during the Great Recession

While crises are widely thought to cause poverty and inequality to rise, establishing their distributional effects is less straightforward than appears at first sight. Their consequences may vary substantially, depending on the interaction between the (reduced) earnings of those affected, the income and employment status of other members of the same households and the capacity of the tax-benefit system to absorb macroeconomic shocks (Atkinson, 2009; Nolan, 2009). In turn, the aggregate redistributive impact of a tax-benefit system depends on its overall size, as well as on the progressivity and relative weight of the policies it comprises (Rawdanowicz *et al.*, 2013). Moreover, distributional effects may well look different depending on the dimension considered. For example, average living standards typically decline in a crisis but inequality may not rise, while the estimated effect on poverty will be less pronounced when the relevant threshold is set as a proportion of average (or median) incomes than when it is held constant in purchasing power terms (Jenkins *et al.*, 2013).

Even though the effects of the Great Recession on the distribution of incomes are a 'hot issue', especially in the countries affected, current political debates are conducted in the absence of real data on that issue. For instance, at the time of writing, the latest

available 'wave' of EU-SILC (European Union Statistics on Income and Living Conditions – the most widely used in Europe) was the 2011 survey, reporting on incomes earned in 2010. In order to fill this gap by providing timely estimates, microsimulation has been used extensively in the context of the current crisis.

In Ireland, Tim Callan *et al.* (2011) and Brian Nolan *et al.* (2013) used microsimulation to examine the effects of the public sector pay cuts that were recently introduced, with both studies concluding that the distributive result of this measure has been progressive.

In Italy, Andrea Brandolini *et al.* (2013) built a microsimulation model to replicate employment dynamics in 2007–10. In the light of their findings they argued that the impact of the recent recession on inequality and poverty in the country has been fairly limited, despite the considerable fall in average income. Elderly households appear to have been better protected from the adverse effects of the crisis than non-elderly households.

In the United Kingdom, where the government, having briefly introduced a stimulus package, embarked on a far-reaching austerity programme, James Browne and Peter Levell (2010) examined the distributional effect of tax and benefit reforms that were to be introduced between June 2010 and April 2014. Their analysis showed that the results are likely to be regressive, with the biggest losers being the low income households of working age. Mike Brewer *et al.* (2011) used a microsimulation model to forecast poverty among children and working-age adults. Their findings suggest that relative child poverty, having remained broadly constant between 2009–10 and 2012–13, will rise slightly in 2013–14. Robert Joyce and Luke Sibieta (2013) studied the effects of reforms to the tax and benefit system between 2008–9 and 2010–11, and found that those with the lowest incomes lost the most from these reforms relative to their income. More recently, Brewer *et al.* (2013) projected the distribution of incomes to 2015–16, and concluded that the impact of austerity (and its timing) will vary widely across income groups.

In a comparative setting, Silvia Avram *et al.* (2013) simulated the distributional effects of fiscal consolidation measures up to 2012 in nine EU countries. The study showed that the burden of austerity was shared differently across the income distribution in these countries: in Greece, Spain, Italy, Latvia, Romania and the United Kingdom the rich lost a higher proportion of their incomes than the poor; in Estonia the opposite seemed to be the case; and in Lithuania and Portugal the burden of fiscal consolidation fell more heavily on the poorer and the richer than it did on people located in the middle of the income distribution scale.

Simulating the Distributional Impact of the Great Recession in Greece

Our research is an attempt to estimate the changes in income distribution associated with both the austerity (i.e. policies specifically introduced by the government, typically under the provisions or in the context of the Greek Programme) and the wider recession (i.e. changes in the wider economy that are not directly under government control, such as those concerning jobs and earnings in the private sector). By covering the period to 2012, we extend and update previous work on the distributional impact of the Greek crisis in 2010 (Matsaganis and Leventi, 2013).

We use the European tax-benefit model EUROMOD. The model applies data from income surveys to the rules of the tax and benefit system currently in force in order to simulate entitlements to social benefits and liabilities for direct taxes and social insurance contributions. We draw on data from the 2007 EU-SILC survey on original incomes, labour market status, household composition and other characteristics. Earnings growth to 2012 is accounted for on the basis of Bank of Greece (2013) estimates for trends in wages by sector and ElStat (2013) data for changes in farming incomes. In the absence of reliable data, we assume that self-employment earnings moved in tandem with average wages. We account for tax evasion drawing on the findings of Manos Matsaganis and Maria Flevotomou (2010) and Matsaganis *et al*. (2012a), assuming that incomes are under-reported by 55 per cent in the case of farming, 25 per cent in the case of self-employment, 1 per cent in the case of salaries and wages, and 0 per cent in the case of pensions and other social benefits. We also correct for non-take-up of social benefits by comparing administrative data on the actual number of benefit recipients to eligibility estimates as simulated in the model. Furthermore, we account for the rise in unemployment by drawing on the methodology of Francesco Figari *et al*. (2011) and Massimo Baldini and Emmanuele Ciani (2010) – i.e. by correcting the original dataset in the light of relevant Labour Force Survey data. The austerity policies taken into account in this study are briefly described in Table 1.

Table 1: Austerity Policies, 2010–2012

Policy area	*Description of main policy changes*
Public sector pay	Replacement of 13th and 14th monthly payments by lump-sum vacation allowances; special allowances cut by 20% in 2010
Pension benefits	Replacement of 13th and 14th monthly pensions by lump-sum vacation allowances
Unemployment insurance benefit	Benefit cut from €454 per month in 2010–11 to €360 in 2012
Indirect taxes	Standard (reduced) rate of VAT raised from 19% (9%) to 23% (13%) in 2010
Direct taxes	Changes in personal income tax in 2010 and 2011; introduction of emergency taxes in 2010
Self-employed extra charge	Annual contribution of €300 in 2010, €500 in 2011 and €650 in 2012
Emergency property tax	Tax on properties at rates varying from €3 to €16 per square metre (introduced 2011)
Pensioners' solidarity contributions	Taxes levied on main and supplementary pensions at rates varying from 3% to 40%
Social insurance contributions	Additional social insurance contributions for unemployment protection (introduced 2011)

Notes: The policies listed are spending cuts and tax increases directly affecting disposable incomes. Funding cuts affecting public provision of health care and other social services are not shown here and are not included in the analysis.

Note that our research focuses on changes in monetary incomes. It follows that funding cuts and other changes affecting the availability and quality of public services such as health care, though absolutely relevant to the well-being of those affected by the crisis, are beyond the scope of our analysis. The same goes for indirect taxes, which affect consumption and not income. However, in recognition of the significance of the 2010 VAT hikes, we partly tackled the issue of the distributional impact of changes in indirect taxation in previous work (Matsaganis and Leventi, 2013). We discuss the relevant findings later in the article.

We believe that our research adds to the existing literature in many ways. To start with, it is part of a sustained research effort (the only one available to date) on the impact of the Great Recession in Greece. Moreover, we simulate the full effects of the crisis. This is in contrast to Brandolini *et al.* (2013), where all changes in income distribution are driven by flows into and out of employment (as wages, self-employment earnings and pension entitlements are assumed not to have changed during the period under examination), and also to Avram *et al.* (2013), where broader developments (such as changes in the labour market) are carefully accounted for as part of the general economic context, but explicitly excluded from the scope of the fiscal consolidation measures assessed. Finally, unlike most of the studies reviewed in the previous section, by simulating the effects of specific policy changes taking place at the same time we are able to distinguish between progressive and regressive items within the same policy package.

The Impact of the Crisis on Poverty

We assess poverty effects using three different indicators. The first is the standard poverty rate, measured in terms of the proportion of the population with a net income below 60 per cent of median. By construction, the standard poverty line goes up as median incomes improve, and goes down as median incomes fall – in our case, from €570 per month in 2009 to €458 in 2012. All this is consistent with the concept of 'relative poverty', and may not matter much when income growth is slow either way.

At times of rapid change in living standards, individuals may compare their material circumstances not only with those of 'the average person' in the society in which they live, but also with their own situation in a previous period. To approximate that, our second indicator fixes the poverty line at 60 per cent of the 2009 median. This threshold moves up with inflation: here, from €570 per month in 2009 to €622 in 2012. In other words, the second indicator tries to capture the experience of those unable to purchase in 2010–12 (the 'crisis years') the goods and services that were just affordable to those with income equal to the 2009 poverty threshold (i.e. on the eve of the Greek crisis).

Our third indicator answers a different question: How many Greeks are in poverty in the sense of being unable to purchase the cheapest basket of goods consistent with dignified living (rather than 'being in poverty' relative to others, or to the way they lived before the crisis)? We have estimated the cost of such a basket of goods, which inevitably involves a considerable amount of discretion, in an earlier study (Matsaganis *et al.*, 2012b), varying the resulting 'extreme poverty threshold' (Bradshaw and Mayhew, 2011) not just by household type, but by geographical area and tenure status as well. For a single person living in Athens in an owner-occupied home without a loan or mortgage,

the extreme poverty threshold in 2012 was €224 per month. (Note that results for this indicator are only available for 2012.) Our estimates of the values of the three poverty indicators (by gender, age, area, tenure and employment status) are presented in Table 2.

The standard poverty rate seems to have risen only moderately: from 20.0 per cent in 2009 to 21.3 per cent in 2012. However, fixing the poverty line at its pre-crisis level in

Table 2: Poverty

	Poverty rates by threshold			
	2009 standard	*2012*		
		Standard	*Fixed*	*Extreme*
All	20.0	21.3	37.0	9.8
Gender				
Men	18.9	21.2	36.5	10.1
Women	21.0	21.4	37.4	9.5
Age				
0–17	21.8	26.8	42.6	16.3
18–29	18.0	22.7	38.1	11.5
30–44	16.3	21.5	36.9	13.0
45–64	19.0	19.9	33.9	8.5
65+	24.6	17.1	35.1	1.4
Area				
Athens	15.8	18.1	33.8	10.1
Other cities	22.0	21.7	39.3	11.1
Rural/semi-rural areas	21.4	22.7	37.8	9.3
Tenure				
Rent or mortgage	16.2	22.7	36.3	17.2
No housing costs	21.3	20.8	37.2	7.2
Labour market status				
Unemployed	32.2	41.1	57.8	27.0
Employee (private excl. banking)	9.3	10.7	23.9	4.1
Employee (public incl. banking)	0.2	0.7	3.6	0.3
Liberal profession	4.5	4.2	8.7	0.9
Self-employed	13.4	15.0	27.4	7.1
Farmer	38.9	31.9	52.0	10.7
Pensioner	23.4	17.0	33.5	1.4
Student	22.1	26.2	42.9	14.7
Others not in the labour force	25.6	21.7	39.0	7.8

Notes: Figures show proportion of population below each poverty threshold. The standard threshold (60 per cent of median equivalised disposable income) for a person living alone fell from €570 per month in 2009 to €458 in 2012. The fixed poverty threshold (60 per cent of the 2009 median, adjusted for inflation) was €622 per month in 2012. The extreme poverty line was calculated using a basket-of-goods approach, and varied by geographical area and tenure status; the extreme poverty threshold for a person living alone in an owner-occupied home without a mortgage in Athens was €224 per month in 2012 (see Matsaganis et al., 2012b).
Source: EUROMOD (version F4.00).

real terms drastically alters the picture. On the second indicator, poverty appears to have almost doubled to 37.0 per cent in 2012. Moreover, we estimate the proportion of population in extreme poverty in 2012 to be 9.8 per cent.

Our results suggest that the rise in poverty is affecting families with children (badly hit by rising unemployment) more than other household types. With respect to gender, in Greece as elsewhere, the crisis seems to have levelled the income gap between men and women. Somewhat paradoxically, the elderly seem to have improved their relative position in terms of income. This is because older persons on low incomes, though not fully protected, suffered lower income losses (e.g. cuts in pensions) than most other social groups. Note, however, that funding cuts and other changes in health care (not taken into account here) raised the costs of services and other barriers to access for those depending upon them, among which the elderly feature prominently. Otherwise, the rise in poverty has left relatively unaffected the 'welfare insiders' of liberal professions, public sector workers and banking employees (Matsaganis, 2011). On the other hand, the unemployed are now facing catastrophic poverty rates: 41.0 per cent are below the conventional poverty line, 59.2 per cent are below the 2009 poverty threshold (in real terms) and as many as 27.8 per cent appear to be in extreme poverty. On the whole, the crisis seems to have reversed the traditional pattern of lower poverty rates among younger households in urban areas than older households in rural areas: the former, under a combination of fixed housing costs and falling incomes, seem now to be struggling more. Considering the gaps in the social safety net (only 19 per cent of jobless workers were on unemployment benefit in 2012), the plight of jobless households has become the new social issue.

The Impact of the Crisis on Inequality

In order to determine whether the current crisis has made the distribution of incomes more unequal we use two indicators: the Gini coefficient and the income quintile share ratio S80/S20 (measuring the income share of the richest 20 per cent relative to that of the poorest 20 per cent). Note that the former is sensitive to changes in the middle of the distribution, whereas the latter is sensitive to changes at the two ends of the distribution.

Our estimates of the values of the two inequality indicators are shown in Table 3. In terms of the Gini index, it appears that inequality fell somewhat in 2010, went back to

Table 3: Inequality

	2009	*2010*	*2011*	*2012*
Gini coefficient	0.350	0.347	0.353	0.368
S80/S20 income share ratio	6.067	6.063	6.439	7.544

Notes: The Gini coefficient varies between 0 (which reflects complete equality) and 1 (which indicates complete inequality). S80/S20 is the income share of the richest 20 per cent relative to that of the poorest 20 per cent of the population.
Source: EUROMOD (version F4.00).

just above its 2009 level in 2011, and rose more decisively in 2012. In terms of the S80/S20 index, the rise in inequality was significant in 2011, and outright spectacular in 2012.

Our findings suggest that the rise in inequality began a year or so after the onset of the crisis, and gathered speed as the recession deepened. Moreover, the different performance of our two indicators implies that changes were more significant at the two ends (especially the lower one) of the income distribution than was the case around the middle.

The (Partial) Impact of Austerity

As mentioned earlier, we jointly analysed austerity (government policies aimed at fiscal consolidation) and the wider recession (changes in jobs and pre-tax earnings in the private sector). By the same token, we can distinguish the distributional impact of the former from that of the latter.

Does it make sense to do so? We concede that the distinction is to some extent artificial. There can be no doubt that the two are closely connected: on the one hand, austerity policies caused aggregate demand to fall and therefore led firms catering for the domestic market to reduce output, cut salaries and lay off personnel; on the other hand, the recession has weakened the deficit-reducing potential of austerity policies (e.g. lower tax takings, higher spending on benefits) and led to the adoption of harsher measures. After all, this is what the controversy on 'fiscal multipliers' (Blanchard and Leigh, 2013) noted above actually implies. This raises the question of what the depth of the recession might have been in the absence of austerity. Even though this question lies well beyond the scope of this article, we maintain that domestic factors that preceded the Greek crisis, such as the steady slide of Greek firms down the competitiveness league table, have also contributed to the recession.

In view of this, although the relative importance of fiscal consolidation versus domestic factors for the depth and duration of the Greek crisis is likely to remain a matter of debate for some time, we believe that isolating the effects on poverty and inequality of austerity *per se* (i.e. ignoring for a moment the wider recession) is of some interest. Note that this is equivalent to assuming that as government policies cut public sector pay, pensions and other social benefits, and raised taxes, they left nominal pre-tax incomes and employment in the private sector at the previous year's levels.

Table 4 suggests that in 2010–11 austerity policies had an equalising effect, which moreover was stronger than the inequality-increasing effect of changes (e.g. job losses) elsewhere in the economy: the income distribution was compressed, resulting in a slight reduction in inequality. Nevertheless, the direction in which the income distribution was compressed was downwards; large numbers of people fell below the 2009 poverty threshold in real terms, and austerity was as much to blame for this as the wider recession.

In 2012, both poverty and inequality registered significant increases, driven primarily by the steep rise in unemployment (+6.7 percentage points). Austerity policies failed to compensate for, and actually reinforced, the inequality-increasing effect of the deepening recession.

That austerity policies *per se* (as distinct from rising unemployment) did not actually cause inequality to rise, at least in 2010–11, seems at odds with established views about

Table 4: Partial versus Full Effects of Austerity

	2009	2010		2011		2012	
		Austerity	*Full effect*	*Austerity*	*Full effect*	*Austerity*	*Full effect*
Poverty							
Standard	20.0	20.2	20.6	20.0	20.4	20.1	21.3
Fixed	20.0	23.5	25.8	29.3	31.1	32.4	37.0
Inequality							
Gini	0.350	0.345	0.347	0.345	0.353	0.353	0.368
S80/S20	6.067	5.929	6.063	5.982	6.439	6.492	7.544

Notes: Figures show the decomposition of changes in poverty and inequality indices, shown in Tables 2 and 3, respectively, into the direct effect of austerity policies and that of the wider recession. The 'austerity' column shows changes directly attributable to the policies listed in Table 1 (assuming no indirect effects). The 'full effect' column includes the impact of changes in earnings (outside the public sector) and employment.
Source: EUROMOD (version F4.00).

what is going on in the country. In fact, our finding seems to be the combined effect of two opposing tendencies: some policies distributed the burden of austerity fairly and/or affected groups located towards the top of the income distribution, while other policies cut incomes across the board and/or affected low income households more. The redistributive impact of each policy can be formally assessed with the index developed by Morgan Reynolds and Eugene Smolensky (1977). The index measures the difference between the counterfactual value of the Gini coefficient in the absence of changes in policy and its actual value after the implementation of the policy assessed (Duclos and Araar, 2006). If that value is positive (negative), the policy is progressive (regressive). The results are shown in Table 5.

We find that, as in the case of Ireland (Callan *et al*., 2011; Nolan *et al*., 2013), public sector pay cuts in Greece were rather progressive. Moreover, the redistributive impact of changes in direct taxation was also found to be progressive. The introduction of pensioners' solidarity contribution and cuts in pensions seemed to have a progressive effect as well, albeit weaker. Other policies, such as the 2012 cut in unemployment benefit (indexed to the minimum wage) or the extra charge levied on the self-employed, had a regressive effect. But the strongest regressive effect was associated with the (highly contested) emergency property tax. Interestingly, the tax, introduced in 2011, not only provided for a higher rate for larger properties in more affluent areas, but actually exempted recipients of unemployment benefit and the long-term unemployed and charged a reduced rate to poor families with more than three children. However, these exemptions only affected a small proportion of income-poor (but not necessarily asset-poor) households. As a result, although partly designed to be progressive *vis-à-vis* the distribution of wealth, the emergency property tax turned out to be regressive *vis-à-vis* the distribution of income.

One final word on the 2010 VAT hikes, which are not analysed here because they affect consumption and not income (the focus of this article). In previous work (Matsaganis and Leventi, 2013), we applied the methodology established in André Decoster *et al*. (2010) on

Table 5: Progressive versus Regressive Policies

	Reynolds-Smolensky index		
	2010	*2011*	*2012*
Direct taxes	+0.0046	+0.0075	No change
Public sector pay	+0.0024	+0.0004	+0.0013
Pension benefits	+0.0003	No change	No change
Pensioners' solidarity contributions	+0.0004	+0.0009	+0.0023
Social insurance contributions	No change	+0.0005	+0.0004
Self-employed extra charge	–0.0003	–0.0004	–0.0007
Emergency property tax	Not available	–0.0031	No change
Unemployment benefit	No change	No change	–0.0016

Notes: Positive (negative) values indicate that the policy in question had a progressive (regressive) impact – i.e. it rendered the income distribution less (more) unequal. The Reynolds-Smolensky index shows the difference between the counterfactual value of the Gini coefficient (in the absence of all austerity policies) relative to its value after the implementation of the policy in question.
Source: EUROMOD (version F4.00).

data from the 2004 Household Budget Survey (given that EU-SILC provides no information on consumption). On the basis of that, we showed that the impact of the 2010 VAT hikes was quite proportional with respect to expenditure (as one might have expected), but extremely regressive with respect to the distribution of income. What reconciles these two seemingly contradictory findings is the well-known fact that the 'propensity to consume' (i.e. the share of income spent on consumption) tends to fall as income rises, and that low income households may spend on necessities more than their current income permits, drawing on past savings or getting into debt.

Have the Rich become Richer (and the Poor Poorer)?

Rather disappointingly to those hoping for a straightforward answer to the all-important question of whether the rich have become richer and the poor have become poorer, it all depends on how the income distribution is analysed. One of the effects of a crisis is that different social categories and income groups are affected differently. Over time, a considerable amount of re-ranking of the income distribution takes place, as a result of which the composition of income deciles changes. In view of that, when deciles are fixed in 2009 (i.e. not allowing for re-ranking), we find that in 2009–12 those in the poorest 10 per cent of the population in 2009 had, on average, lost a smaller proportion of their income than those in the richest 10 per cent (24.2 versus 28.4 per cent, in real terms). On the other hand, when deciles are re-calculated each year (i.e. allowing for re-ranking), we find that the income of those in the poorest 10 per cent of the population in 2012 had fallen by 56.5 per cent relative to the income of those in the poorest 10 per cent in 2009 – i.e. by twice as much as the average loss of 28.4 per cent in real terms. This is shown in Table 6.

Clearly, this reflects changes in the composition of the population in poverty. Those in poverty before the crisis (e.g. pensioners in rural areas) were not entirely protected, but

Table 6: Re-ranking Effects (%)

	Change in real income, 2009–12 Composition of deciles:	
Income deciles	*Fixed as in 2009*	*Variable*
Poorest 1	–24.2	–56.5
2	–24.7	–32.2
3	–26.1	–28.5
4	–26.2	–28.0
5	–27.1	–26.6
6	–27.5	–27.0
7	–29.1	–27.7
8	–30.8	–28.7
9	–29.2	–27.4
Richest 10	–29.4	–26.9
All	–28.4	–28.4

Notes: In the first column, the composition of income deciles is fixed at the start of the period under consideration; figures show that the members of the poorest decile in 2009 had by 2012 lost, on average, 24.2 per cent of their income in real terms. On the other hand, the composition of deciles in the second column varies in line with changes in the distribution of incomes; figures show that, compared to the average income of the poorest decile in 2009, the average income of the same decile in 2012 was 56.5 per cent lower in real terms.
Source: EUROMOD (version F4.00).

they lost less than the average Greek (at least in monetary terms). On the other hand, those in poverty under the crisis (e.g. unemployed workers with children) fell below the poverty line because they lost a massive proportion of their income.

Concluding Remarks

Our results can be summarised as follows. As a result of the Great Recession, relative poverty in Greece (as measured conventionally, by reference to a variable threshold) increased moderately from 20 per cent in 2009 to 21.3 per cent in 2012. However, when fixing the poverty line at pre-crisis levels in real terms, poverty appears to have risen dramatically to 37 per cent in 2012. While both indicators reveal different parts of the same picture, the latter is arguably better suited to periods of rapid change in living standards, capturing the sense of impoverishment when nominal incomes fall while prices keep rising (as is currently the case in Greece). Furthermore, almost one in ten people in 2012 were found to be not just in relative, but in extreme poverty in the sense of being unable to purchase the basic necessities consistent with dignified living (albeit on a shoestring) without dissaving or running into debt.

The rise in inequality began in earnest in 2011, and gathered speed as the recession deepened. The main driver of growing inequality is the recession, especially rising unemployment, rather than austerity *per se*. Indeed, some of the latter seems to have had a progressive effect: either because special care was taken to make a particular policy 'fair' by design (as in the case of pensioners' solidarity contributions) or because those worst

affected were located towards the top of the income distribution (as in the case of public sector pay cuts). This was partly offset by the regressive effect of emergency property taxation, the unemployment benefit cut and self-employed levies. The same, of course, is true for the 2010 VAT hikes (analysed separately). As the crisis persisted, austerity policies gradually lost the capacity to offset the adverse effect of the deepening recession – and, from 2012, reinforced that effect.

Even though the impact of austerity (as distinct from the recession) on inequality can be described as moderate, this is far from saying that all is well with 'the Greek Programme'. First, as the controversy over 'fiscal multipliers' discussed above shows, the content and timing of austerity policies can exacerbate the recession. Second, while austerity policies *per se* may not have caused inequality to increase more than the recession has done, they certainly failed to correct the inequality-increasing effects of rising unemployment. Third, while it can be argued that preventing inequality to rise might have been too difficult in the context of mass unemployment and harsh fiscal constraints, preventing poverty to rise by strengthening the social safety net was entirely feasible – and yet it was not even seriously attempted. As shown earlier, the number of people whose income fell below the 2009 poverty line (adjusted for inflation) rose steadily with each round of austerity policies, and increased further still as the effects of the recession (chiefly, the rise in unemployment) were felt.

Our findings show that in order to share the burden of austerity more equitably and minimise losses for low income groups, policies to reduce Greece's fiscal deficit need to be redesigned. In particular, the importance of fighting tax evasion cannot be overstated: it is crucial from a fiscal point of view (improving tax collection would help reduce budget deficits), as well as from a political point of view (restoring distributional justice would go a long way towards making austerity policies more acceptable).

As shown elsewhere (Lyberaki and Tinios, 2014; Matsaganis, 2012), faced with greatly increased demand for social protection as a result of job and income losses, the response of the Greek welfare state in 2009–12 was inadequate – and it is unlikely to get better soon. The 2013–14 Spending Review explicitly targeted social transfers: €6.1 billion (3.23 per cent of GDP) of savings were to be achieved through massive cuts in pensions and other social benefits, and another €0.7 billion (0.38 per cent of GDP) through increases in social insurance contributions. This did not include further funding cuts in social services, which were also planned (IMF, 2013). At the same time, four policies improving social protection were to be introduced (with strict cash limits attached): a new means-tested child benefit, broader eligibility conditions for unemployment assistance, unemployment protection extended to the self-employed, and a minimum income experiment to take place in 2014 in two local areas. These measures, though welcome, look decidedly unimpressive. The balance of 'retrenchment' versus 'expansionary' policy changes remains overwhelmingly tilted towards the former. For each €100 saved as a result of cuts in pensions and other social benefits under the 2013–14 Spending Review, less than €5 was 're-invested' in the four policies improving social provision.

On the whole, for all the rhetoric of political actors at home and international organisations abroad as to the priority that must be afforded to softening the social effects of the economic crisis, the record so far can only be described as disappointing in the

extreme. And yet, as things stand now, nothing short of a concerted effort to tighten the social safety net and compensate the weakest groups for their losses will go anywhere near addressing Greece's new social question.

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